CLAIMS

1. A multimeric dye for ink-jet printing, comprising a first dye molecule chemically coupled to a second dye molecule through a linker group, said multimeric dye as a whole being substantially stable in the presence of interfering metals.

2. A multimeric dye as in claim 1, wherein the first dye molecule and the second dye molecule have the same chemical structure.

3. A multimeric dye as in claim 1, wherein the first dye molecule and the second dye molecule have different chemical structures.

4. A multimeric dye as in claim 1, wherein the first dye molecule is an H-acid dye.

5. A multimeric dye as in claim 1, wherein the first dye molecule is a gamma-acid dye.

6. A multimeric dye as in claim 1, wherein the first dye molecule is a xanthene dye.

7. A multimeric dye as in claim 1, wherein the first dye molecule is a metal-complex dye.

8. A multimeric dye as in claim 1, wherein the first dye molecule is a phthalocyanine dye.

9. A multimeric dye as in claim 1, wherein the first dye molecule is an azo or diazo dye.

10. A multimeric dye as in claim 1, wherein the first dye molecule provides a first color, and the second dye molecule provides a second color, thereby resulting in a third color that is different than the first color and the second color.

11. A multimeric dye as in claim 1, wherein the linker group is coupled to the first dye molecule or the second dye molecule by a bonding structure selected from the group consisting of an amide bond, an ether bond, and an ester bond, and wherein the linker group further includes an alkylene group, an arylene group, or a cycloalkylene group.

12. A multimeric dye as in claim 11, wherein the linker group is a triazine.

13. A multimeric dye as in claim 11, wherein the linker group is attached to the first dye molecule and the second dye molecule by amide bonds.

14. A multimeric dye as in claim 11, wherein the linker group is attached to the first dye molecule and the second dye molecule by ether bonds.

15. A multimeric dye as in claim 11, wherein the linker group is attached to the first dye molecule and the second dye molecule by ester bonds.

16. A multimeric dye as in claim 11, wherein the linker group includes an alkylene group.

17. A multimeric dye as in claim 11, wherein the linker group includes an arylene group.

18. A multimeric dye as in claim 11, wherein the linker group includes a six-carbon cycloalkylene group, and wherein the first dye molecule is configured cis on the cycloalkylene with respect to the second dye molecule.

19. A multimeric dye as in claim 11, wherein the linker group includes a six-carbon cycloalkylene group, and wherein the first dye molecule is configured trans with respect to the second dye molecule.

20. A multimeric dye as in claim 11, wherein the linker group includes a six-carbon cycloalkylene, and the first dye molecule and the second dye molecule are in a 1,2 configuration on the cycloalkylene.

21. A multimeric dye as in claim 11, wherein the linker group includes a six-carbon cycloalkylene, and the first dye molecule and the second dye molecule are in a 1,3 configuration on the cycloalkylene.

22. A multimeric dye as in claim 11, wherein the linker group includes a six-carbon cycloalkylene, and the first dye molecule and the second dye molecule are in a 1,4 configuration on the cycloalkylene.

23. A multimeric dye as in claim 1, said multimeric dye being from 10 to 60 Angstroms in size.

24. A multimeric dye as in claim 1, wherein the multimeric dye is soluble in a liquid vehicle configured for jetting the multimeric dye.

25. An ink-jet ink, comprising:

(a) a liquid vehicle; and

(b) from 1 wt% to 10 wt% of multimeric dye solvated in the liquid vehicle, said multimeric dye including a first dye molecule chemically coupled to a second dye molecule through a linker group, said multimeric dye as a whole being substantially stable in the presence of interfering metals.

26. An ink-jet ink as in claim 25, wherein the first dye molecule and the second dye molecule have the same chemical structure.

27. An ink-jet ink as in claim 25, wherein the first dye molecule and the second dye molecule have different chemical structures.

28. An ink-jet ink as in claim 25, wherein the first dye molecule is a member selected from the group consisting of H-acid dye, gamma-acid dye, xanthene dye, metal-complex dye, phthalocyanine dye, and azo or diazo dye.

29. An ink-jet ink as in claim 25, wherein the first dye molecule provides a first color, and the second dye molecule provides a second color, thereby resulting in a third color that is different than the first color and the second color.

30. An ink-jet ink as in claim 25, wherein the linker group is a triazine.

31. An ink-jet ink as in claim 25, wherein the linker group is attached to the first dye molecule and the second dye molecule by amide bonds.

32. An ink-jet ink as in claim 25, wherein the linker group is attached to the first dye molecule and the second dye molecule by ether bonds.

33. An ink-jet ink as in claim 25, wherein the linker group is attached to the first dye molecule and the second dye molecule by ester bonds.

34. An ink-jet ink as in claim 25, wherein the linker group includes a member selected from the group consisting of an alkylene group, an arylene group, and a cycloalkylene group.

35. A system for printing water fast and humid fast images, comprising:

(a) an alumina- or silica-containing porous media substrate;

(b) an ink-jet ink including a first dye molecule chemically coupled to a second dye molecule through a linker group, said multimeric dye as a whole being substantially stable in the presence of interfering metals present in the alumina- or silica containing porous media substrate; and

(c) an ink-jet pen configured for jetting the ink-jet ink onto the alumina- or silica-containing porous media substrate.

36. A system as in claim 35, wherein the first dye molecule and the second dye molecule have the same chemical structure.

37. A system as in claim 35, wherein the first dye molecule and the second dye molecule have different chemical structures.

38. A system as in claim 35, wherein the first dye molecule is a member selected from the group consisting of H-acid dye, gamma-acid dye, xanthene dye, metal-complex dye, phthalocyanine dye, and azo or diazo dye.

39. A system as in claim 35, wherein the first dye molecule provides a first color, and the second dye molecule provides a second color, thereby resulting in a third color that is different than the first color and the second color.

40. A system as in claim 35, wherein the linker group is a triazine.

41. A system as in claim 35, wherein the linker group is attached to the first dye molecule and the second dye molecule by amide bonds.

42. A system as in claim 35, wherein the linker group is attached to the first dye molecule and the second dye molecule by ether bonds.

43. A system as in claim 35, wherein the linker group is attached to the first dye molecule and the second dye molecule by ester bonds.

44. A system as in claim 35, wherein the linker group includes a member selected from the group consisting of an alkylene group, an arylene group, and a cycloalkylene group.